

Listing of the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously presented) A filter cartridge comprising a strip, spun bonded non-woven fabric, the fabric comprising a thermoplastic fiber in which at least a part of fiber intersections is thermally adhered by a thermal compression bonding method, wherein the strip, spun bonded non-woven fabric is wound around a perforated cylinder in a twill form.
2. (Previously presented) The filter cartridge as described in claim 1, wherein the thermoplastic fiber constituting the spun bonded non-woven fabric is a thermally adhesive composite fiber comprising a low melting point resin and a high melting point resin, the difference in a melting point of both the resins being 10°C or more.
3. (Original) The filter cartridge as described in claim 2, wherein the low melting point resin is linear low density polyethylene and the high melting point resin is polypropylene.
4. (Previously presented) The filter cartridge as described in claim 1, wherein the spun bonded non-woven fabric is bonded by thermal compression by means of a heat embossing roll.
5. (Cancelled)
6. (Previously presented) The filter cartridge as described in claim 1, wherein the strip, spun bonded non-woven fabric is twisted.
7. (Previously presented) The filter cartridge as described in claim 1, wherein the strip, spun bonded non-woven fabric is formed into a pleated matter having 4 to 50 pleats and wound around a perforated cylinder in a twill form.
8. (Original) The filter cartridge as described in claim 7, wherein at least a part of the pleats of the above pleated matter is non-parallel.
9. (Original) The filter cartridge as described in claim 7, wherein the pleated matter has a void rate of 60 to 95 %.

10. (Previously presented) The filter cartridge as described in claim 1, wherein the filter cartridge has a void rate of 65 to 85 %.
11. (Previously presented) The filter cartridge as described in claim 1, wherein the spun bonded non-woven fabric has a slit width of 0.5 cm or more, and a product of the slit width (cm) and the basis weight (g/m^2) is 200 or less.
12. (Previously presented) The filter cartridge as described in claim 1, wherein the filter cartridge has a ratio of trapped particle diameter in 0.2 MPa/initial trapped particle diameter being 1 - 1.13 when initial trapped particle diameter is 7.1 to 30 μm .
13. (Withdrawn) A process for preparing a filter cartridge, wherein a strip, spun bonded non-woven fabric comprising a thermoplastic fiber, prepared by a spunbonding method in which at least a part of the fiber intersections is thermally adhered, is converged, and then wound around a perforated cylinder in a twill form.
14. (Withdrawn) A process for preparing a filter cartridge, wherein a strip, spun bonded non-woven fabric comprising a thermoplastic fiber, prepared by a spunbonding method in which at least a part of the fiber intersections is thermally adhered, is pre-molded by means of a pleat-forming guide to be processed into a pleated matter, and then wound around a perforated cylinder in a twill form.
15. (Withdrawn) A process for preparing a filter cartridge as described in claim 14, wherein the non-woven fabric is converged in such manner that the cross-sectional form of the pleated matter produced through the guide shows no parallel pleats.
16. (Withdrawn) The filter cartridge as described in claim 1, wherein the spun bonded non-woven fabric is bonded by thermal compression by means of a heat flat calendar roll.